

REMARKS

The Office examined claims 1-13 and rejected claims same. With this paper, claims 3, 5 and 12 are amended, no claims are canceled, and new claim 14 is added to the application, so that claims 1-14 are now pending.

Change to the specification

The paragraph beginning at page 8, line 10 is corrected for obvious typographical errors. The statement at line 5, beginning, "If so," is changed to "If not," based on the later statement at line 12, confirming the change as what was obviously meant at line 4.

Rejections under 35 USC §103

At page 2 of the Office action, claims 1-13 are rejected under 35 USC §103 as being unpatentable over US-2004/0029080 (Healy) in view of US-2005/0068169 (Copley).

The independent claims are apparatus claim 1 and method claim 11. These recite a ranging receiver using sensor signals provided by a motion sensor mechanically coupled to the ranging receiver; and the ranging receiver powering down selected components based on whether the sensor signals indicate only at most insubstantial motion of the ranging receiver.

Regarding claim 1: The Office asserts that Healy discloses the invention as in claim 1, except that Healy fails to disclose a mechanical coupling of a motion sensor to a ranging receiver. The Office points to par. [0085] of Healy for a teaching of a ranging receiver including a motion sensor. The Office relies on Copley, in the abstract, for such a teaching.

Applicant respectfully submits that there is no motivation for changing the system disclosed by Healy so as have the motion sensor 80 mechanically coupled to the GPS receiver 84. The

motion sensor 80 of Healy is used not only in providing signals to the processor 58 used in determining whether to power down the GPS receiver 84, but also to non-maskable interrupt (NMI) logic circuit 62, which is unrelated to the GPS receiver. (See Fig. 8A). In other words, even if there were no GPS receiver in the system disclosed by Healy, there would still be a need for a motion sensor to provide motion sensor signals to the NMI circuit 62. As explained in par. [0065], the NMI logic circuit generates a NMI signal to bring the processor 58 (not the GPS receiver 84) out of a powerdown mode. Thus, applicant respectfully submits that the invention is patentable over Healy in view of Copley, since the teachings of Copley would, according to the Office, suggest that the motion sensor be mechanically coupled to the GPS receiver 84, thereby making it difficult to provide signals from the motion sensor 80 to the NMI logic circuit 62.

Regarding claim 11: the same arguments made in respect to claim 1 apply to the rejection of claim 11.

Regarding claim 3: The Office asserts that Healy at par. [0073] discloses the limitations of claim 3. At the cited location Healy discloses a GPS being turned off automatically, i.e. regardless of the ranging information it provides, as soon as it provides its ranging information (to a processor 58), and then turned back on "only" when the motion sensor detects significant motion. At the cited location Healy explains that:

Thus, the GPS receiver is only turned on after the processor receives from the motion sensor 80 a signal representative of the user taking a predefined number of steps, and is then immediately turned off after the processor receives new GPS position information.

Claim 3 is now amended (based on the paragraph at page 8, line 10) to make more clear that the invention as in claim 3 uses both sensor signals and output signals from the ranging receiver in deciding *whether* (or not) to power down the selected components of the ranging receiver, by determining whether the

output signals from the ranging receiver also indicate that the ranging receiver is substantially stationary. With Healy, there is not such determination. Powering down the GPS receiver is automatic after the processor receives now GPS position information.

Regarding claims 5 and 12: With this paper, claims 5 and 12 are changed to more distinctly claim the invention in respect to not turning on the selected components even though some motion is sensed by the motion sensor, provided the motion is determined to be insubstantial, i.e. motion of at most several centimeters per minute (very slow motion). (See page 7 of the application, 11. 15-22.) The Office refers to Healy teaching not turning on the GPS receiver until after the user is sensed as having taken a "predefined number of steps." Applicant respectfully submits that this is an altogether entirely different approach than the invention as in claims 5 and 12. With the invention, if the user takes even one step quickly, the motion sensor would indicate substantial motion (not very slow motion), and would turn on. However, the user could take a relatively large number of steps slowly (as long as this is done in the predetermined time limit), and the power would not be reapplied. Thus, the number of steps according to the invention as in claims 5 and 12 is irrelevant, but the speed with which a step is taken is crucial. According to Healy on the other hand, the rapidity of the motion is irrelevant, but the number of steps is dispositive.

Accordingly, in view of the above arguments and in view of the dependencies of the claims not argued, applicant respectfully requests that the rejections under 35 USC §103 be reconsidered and withdrawn.

New claim

New claim 14, depending from method claim 11, recites limitations corresponding to apparatus claim 3, depending from

claim 1. New claim 14 is believed patentable for the same reasons as given for claim 3.


Conclusion

For all the foregoing reasons it is believed that all of the claims of the application are in condition for allowance and their passage to issue is earnestly solicited. Applicant's attorney urges the Examiner to call to discuss the present response if anything in the present response is unclear or unpersuasive.

Respectfully submitted,

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